

Application No. 10/010,435
Amendment dated October 26, 2005
Reply to Office Action of April 26, 2005

Attorney Docket No. 72523

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of constructing a glass panel which comprises two confronting edge sealed tempered glass sheets, the method comprising the steps of:

- providing a solder glass band around a margin of one surface of each glass sheet;

- heating the glass ~~sheet~~ sheets to a first temperature to temper each sheet and to form an hermetic bond between the solder glass band and the associated surface of each glass sheet, which bond is maintained after each sheet has been tempered;

- positioning the glass sheets in spaced-apart confronting relationship; and

- heating the glass sheets to a second temperature, which is lower than the first temperature, to form an hermetic seal between the two solder glass bands while substantially avoiding annealing of either glass sheet, and while maintaining the spaced apart relationship between the glass sheets.

2. (Original) A method as claimed in claim 1, wherein the step of forming the hermetic seal between the solder glass bands comprises fusing together the two solder glass bands to form a hermetic bond directly between those bands.

3. (Original) A method as claimed in claim 1, wherein the step of forming the hermetic seal between the two solder glass bands comprises interposing solder glass between the two solder glass bands and fusing the solder glass with the two solder glass bands.

4. (Cancelled)

5. (Original) A method as claimed in claim 1, wherein support pillars are used to maintain the glass sheets in the spaced apart relationship.

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6. (Original) A method as claimed in claim 1, wherein the method further comprises a step of evacuating hermetically sealed space between the two glass sheets.

7. (Original) A method as claimed in claim 1, wherein the step of providing the marginal solder glass bands comprises depositing a liquid paste comprising solder glass powder onto the surfaces.

8. (Original) A method as claimed in claim 1, wherein the solder glass is deposited by a screen printing process.

9. (Cancelled)

10. (Original) A method as claimed in claim 1, wherein, during the forming of the hermetic seal between the two solder glass bands, a spacing between the glass sheets changes compared to when the glass sheets are positioned in the spaced-apart confronting relationship.

11. (Original) A method as claimed in claim 1, wherein the glass sheets are flat.

12. (Original) A method as claimed in claim 1, wherein the glass sheets are curved.

13. (Cancelled)

14. (Currently Amended) A method of constructing a glass panel which comprises two confronting edge sealed glass sheets, the method comprising the steps of:

- providing a solder glass band around a margin of one surface of each glass sheet;

- heating the glass sheet to a first temperature to temper each sheet and to form an hermetic bond between the solder glass band and the associated surface of each glass sheet, which bond is maintained after each sheet has been tempered;

- positioning the glass sheets in spaced-apart confronting relationship; and

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- heating the glass sheets to a second temperature, which is lower than the first temperature, to form an hermetic seal between the two solder glass bands, while substantially avoiding annealing of either glass sheet and maintaining the spaced apart relationship between the glass sheets,

wherein forming the hermetic seal between the two solder glass bands comprises interposing solder glass between the two solder glass bands and fusing the solder glass with the two solder glass bands.

15. (Withdrawn) A glass panel, comprising:

- two spaced-apart tempered glass sheets with sealed confronting edges, each glass sheet having a marginal solder glass band made around a margin of one surface, which hermetically bonds with the associated surface at the time of tempering; and
- an hermetic seal between the solder glass bands of the two glass sheets made at a temperature lower than temperature of tempering, to avoid annealing of either glass sheet.

16. (Withdrawn) The glass panel of claim 15, comprising interposed solder glass deposited between the two solder glass bands and fused with the two solder glass bands.

17. (Withdrawn) The glass panel of claim 15, comprising support pillars to maintain the glass sheets in the spaced apart relationship.

18. (Withdrawn) The glass panel as claimed in claim 15, wherein the solder glass band is a pre-formed film or tape.

19. (Withdrawn) The glass panel as claimed in claim 15, wherein the glass sheets are flat.

20. (Withdrawn) The glass panel as claimed in claim 15, wherein the glass sheets are curved.